



# KARO ECHO Newsletter

## KARO ECHO

Serving the communities  
of El Cerrito and  
Kensington, California

**Web:** [www.karoecho.net](http://www.karoecho.net)

**Facebook:**  
[KARO ECHO facebook](#)

**Email:** [info@karoecho.net](mailto:info@karoecho.net)

## Important Frequencies

KE Primary: 146.415 MHz  
Weekly Net, Thurs. 1900

KE Secondary: 146.475 MHz

4Cs Repeater: 145.110 MHz  
(TX down 600 with PL 82.5)

## Monthly Meetings

In-person meetings

2<sup>nd</sup> Monday of each month  
7:00 pm

(online via Zoom also)

Kensington Comm. Center,  
59 Arlington Blvd,  
Kensington, CA

The next meetings are:

Mar. 14<sup>th</sup>, 2022

Apr. 11<sup>th</sup>, 2022

Meeting minutes are on  
[the website](#) in the past  
events page.

## What's New

### KARO ECHO Monthly Meeting, Mar. 14<sup>th</sup>, 1900 — **IN-PERSON & ONLINE**

The monthly KARO ECHO meeting will be **back in-person**, as well as online via Zoom, at the usual time, 1900, Monday Mar. 14<sup>th</sup>. The training portion will include SET preparation and training as well as a brief intro to equipment for digital modes (see page 4). [Full agenda link](#).

### In-person Meeting Venue

Thanks to Hal KK6NDF for securing an in-person meeting venue. For our March 14<sup>th</sup> meeting we are welcoming members back to our historical meeting place in the [Kensington Community Center](#) (KCC), 59 Arlington Blvd (not the more recently utilized Arlington Park meeting place in El Cerrito). For those who want to join remotely, we plan to run a hybrid meeting, and we have sent out a Zoom link, as we have been doing for two years of virtual meetings. For the in-person meeting, we expect everyone to be vaccinated (but we will not check cards). We want everyone to feel comfortable. Feel free to communicate any concerns. Wearing masks is welcomed but not required.

### Spring SET, April 30<sup>th</sup>, 1000-1200

Please hold the date of Saturday April 30<sup>th</sup> for the Spring SET (Simulated Emergency Test). It will be held from 1000-1200. Focusing on field operation and including neighborhood nets, digital modes, geolocations and more.

### Insurance Coverage for KARO ECHO

Thanks to Annette KJ6SWK for following up with the purchase of insurance for the club. As was voted on at the Feb. meeting, KARO ECHO now has liability insurance [through the ARRL](#). The annual premium runs \$200. Also, many thanks to Ruth (partner of Tom KN6BUY) for volunteering her insurance expertise to help use evaluate the policy and understand the ins and outs of insurance considerations. [A link to the policy is on the website](#).

### Reminder to Renew Your Membership Dues—Online payment available

Yearly membership dues are \$30/year for individuals, \$40/year for a family membership. Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651 Thank you to Martha K6ELO and new treasurer Annette KJ6SWK for adding the online payment option available on the website and [with this link](#).

**LOCAL NETS****KARO ECHO Simplex Nets**

146.415 MHz (primary)

146.475 (secondary)

**Voice net:** Thursday, after the West Contra Costa RACES Net, but not before 1900 hours local time.

**Digital net:** Monday, 1900

**West Contra County ACS/RACES Net**

145.110 MHz repeater  
(TX down 600 with PL 82.5)  
Thursday: 1845 local time

**Contra Costa County HF EmComm/RACES Net**

3893 KHz. Thursday, 1835

**American Red Cross of the Bay Area (ARCBA)**

WW6BAY Repeater  
443.975 MHz  
TX +5 MHz, PL 100 Hz  
Wednesday: 2000 local time

**BOARD MEMBERS**

President: Howdy KE6BEE  
Vice-Pres: Frans KJ6IUV  
Treasurer: Annette KJ6SWK  
Secretary: Tom KN6BUY  
Em. Coor: Howdy KE6BEE  
Outreach/PR Manager:  
Blake KN6CMP  
Web-maestro: Rob K6RJM  
Board member at large:  
Hal KK6NDF  
Net Manager and Newsletter  
Editor: Howdy KE6BEE

**What's New *(continued)*****Neighborhood nets and Communication Hub Activities**

The first Wednesday of the month has a lot of radio activity in the area.

**West county EmComm net out of Richmond at 11 am** (starts after the Richmond siren test) FRS/GRMS simplex (on Ch.19, secondary Ch. 17), followed by a ham net on the [WA6KQB 440 repeater](#) with WA6DUR repeater as secondary (see WA6DUR freq. information below)

**East Richmond Heights**, ham operators check-in at 1845 on Walt's WA6DUR repeater 442.150 +5 offset and PL tone 107.2Hz.

**EC4 (central El Cerrito Hills)** CERT Net, Ch. 2 (462.5875), at 1845

**EC9 (north El Cerrito Hills)** CERT Net, Ch. 15 simplex (462.550), at 1900

**East Richmond Heights, Ready-2-React Net**, Ch. 7 (462.7125), at 1930

**EC8 (north El Cerrito)** CERT net, Ch.4 (462.6375), at 2000

**Ken6 (SW Kensington)** CERT net, on first Tuesdays, Ch. 6 (462.6875) at 1900

**Richmond simulated EOC net**, first Thursdays at 1030, on three simplex frequencies in this order: 147.450, 441.000, 223.400

**Albany Radio Net**, Wed. (weekly) 1900 on Ch.19 [Albany Radio groups.io](#)  
[Coordination of neighborhood FRS/GMRS frequencies can be found here.](#)

**Welcome New Hams**

New El Cerrito licenses issued: none in past month

New Kensington licenses issued: none in past month

**Action - Contribute to this Newsletter**

Content for this newsletter is always welcome. We are seeking submissions for a new free classified section for selling/trading radio equipment/services. Anyone with events or other content suggestions please send them to the newsletter editor Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

**Digital Net, Wed. 3/16, 1930**

Because of the member meeting on Monday, the digital net will be on Wed. 2/16, at 1930 on 146.415, currently focusing on 1200 baud AX.25 packet and Win-link interfaces. Thanks to Rob K6RJM for his work on a packet BBS on 441.500, connect to W6ECK-1 for local messaging or W6ECK-10 for internet messaging.

## What's New *(continued)*

### Message from new Treasurer Annette KJ6SWK

If you are like me and have trouble getting around to mailing a check for your KARO-ECHO membership dues YOUR TIME HAS COME. You are now able to pay online through PayPal (thanks to help from Martha K6ELO)! No PayPal account is required. Use the [donate button on the KARO ECHO home](#) page, or under the heading "[Get Involved—Join](#)". There are equivalent embedded links and donate buttons in multiple places on the website that can be used to pay dues and make general donations.

A couple of comments might help. First, since Karo-Echo is a non-profit, the wording says that you are making a donation instead of paying dues, and your dues are deductible. An introductory paragraph tells you that our dues are \$30 for an individual or \$40 for all HAMS in a household. We are VERY appreciative of donations beyond the dues owed. I will record any payment above dues owed as both dues and a donation. To enter your payment, start typing where the cursor is beside the large zeros (they will not delete but will be overwritten as you type). There is a box to check if you are willing to cover our cost for the transaction which is currently \$1.09 (a first class stamp is \$0.58, so this isn't much more than to pay for the convenience). A few minutes after you complete the payment a receipt should pop up in your email.

Of course, you are also still welcome to mail your dues, as always.  
KARO-ECHO, P.O. Box 2025, El Cerrito, CA 94530-5025.

Your dues and donations are the source of funds for our ongoing costs of operation, as well as installing equipment we need to have in place for effective emergency operations. Currently, we are planning to install additional antennas and patch boxes in El Cerrito and Kensington to give easy outdoor access to high quality communication for operators deployed various public spaces.



### Treasurer's Report

KARO-ECHO Treasurer's Report				
As of March 7, 2022				
	Credits	Debits	Bank Balance	
Balance Forward from 2/14/2022			\$1,760.17	
Since last report				
Check		\$49.99	\$1,710.18	IRS 990N
		\$200.00	\$1,510.18	Insurance
Balance 3/7/22			\$1,510.18	
No new membership payments in this period				
24 total paid members currently				

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## Introduction to Equipment for Digital Modes

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KARO ECHO has been having digital nets for several months with a number of members practicing a variety of digital modes. While many different digital modes are useful, each with their own merits, recently KARO ECHO has been focusing on 1200 baud AX.25 “packet” in combination with a dedicated BBS server (“bulletin board”) setup by Rob K6RJM.

The reason for this focus is that it is a good match/complement to the messaging operations that KARO ECHO practices (including the ability to store formatted message forms on a server that can be retrieved at a different time than they are sent) and the gear necessary for this functionality is relatively inexpensive and widely adaptable to a variety of radios and computers. We are ready to start ramping up the number of participants in our digital operations and are happy to help anyone interested in learning more. By request to ke6bee@arrl.net you can be added to the digital@karoecho.net google group email list.

The following write-up is a just a brief summary of hardware that allows getting started with this digital mode and the packet server to help give a sense of the scope of the gear.

For packet, the modulated audio tones can be generated by a dedicated piece of equipment, a hardware TNC (Terminal Node Controller), or it can use a general purpose “soundcard” interface with a a special piece of software, sometime called a software TNC. Both approaches work well and can be reasonably priced. Depending on the computer platform, software setup can be more complicated with the multiple layers of software when using a software TNC.

Soundcard interfaces: [Digirig \\$50](#), [K1 pattern HT cable \\$30](#)

[Signalink \\$140](#) (available with a variety of cables to fit you radio included)

Hardware TNC: [NinoTNC](#), [assembled no case \\$64](#), [case \\$10](#) (or KARO ECHO member will 3D print for you)

9-pin TNC cables to fit many radios [available here](#) (or KE members can help you make one)

Windows Operating System software:

[Winlink Express](#)

[UZ7HO Soundmodem](#) (if using a “soundcard” device rather than a hardware TNC)

Mac/Linux/Raspberry Pi software:

[Pat](#)

[Direwolf](#) (if using a “soundcard” device rather than a hardware TNC)

## Activities

### Weekly Net Control Rotation

Thanks go out to the volunteer stations who have been taking turns as Net Control Stations (NCS) each Thursday. This rotation has been working very well and everyone has been doing a great job. The regular NCS roster has 9 operators. Fill-ins are sometimes needed and we can always add another to permanent rotation. Please volunteer to give it a try. [Download the new Net Script for NCS operators.](#)

Below are the **new scheduled dates** for each operator next year. The [KARO ECHO google calendar](#) also has these assignments and can be found at the bottom of the events page. Add to your electronic calendar By pressing the "+GoogleCalendar" button in the lower right.

Net control is a skill that many operators should have and regularly practice. Please contact Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) if you are interested in taking a net control assignment.

Callsign	Name	Assigned Dates (skipped: Thanksgiving 11/25/2021, 11/24/2022)						
KE6BEE	Howdy Goudey	10/21/2021	12/30/2021	3/3/2022	5/5/2022	7/7/2022	9/8/2022	11/10/2022
KK6NDF	Hal Graboske	10/28/2021	1/6/2022	3/10/2022	5/12/2022	7/14/2022	9/15/2022	11/17/2022
KM6HBO	Jamuel Starkey	11/4/2021	1/13/2022	3/17/2022	5/19/2022	7/21/2022	9/22/2022	12/1/2022
KN6BUY	Tom Fattaruso	11/11/2021	1/20/2022	3/24/2022	5/26/2022	7/28/2022	9/29/2022	12/8/2022
K6RJM	Rob McNicholas	11/18/2021	1/27/2022	3/31/2022	6/2/2022	8/4/2022	10/6/2022	12/15/2022
KE6HCE	Armando Picciotto	12/2/2021	2/3/2022	4/7/2022	6/9/2022	8/11/2022	10/13/2022	12/22/2022
NI6A	Frans Kuypers	12/9/2021	2/10/2022	4/14/2022	6/16/2022	8/18/2022	10/20/2022	12/29/2022
KN6CMR	Susan Yeaman	12/16/2021	2/17/2022	4/21/2022	6/23/2022	8/25/2022	10/27/2022	1/5/2023
KK6ZPM	Karen Fenton-Leong	12/23/2021	2/24/2022	4/28/2022	6/30/2022	9/1/2022	11/3/2022	1/12/2023

### Thursday Net Training Exercises

Following the net check-ins every Thursday at 1900 on 146.415, KARO ECHO usually runs a training exercise to learn and practice skills that are important for successful disaster communications.

[A list of potential training exercises](#) is posted and maintained on the training page of the website.

[A log of our check-in counts can be found here.](#) Howdy KE6BEE typically updates this document in real time during the net, so you can check it against your log during or after the net.

For 2020: 1008 check-ins, avg. 21/week, high of 28, 72 unique callsigns

For 2021: 919 check-ins, avg. 19/week, high of 25, 54 unique callsigns

For 2022 (so far): 191 check-ins, avg. 19/week, high of 23, 31 unique callsigns

Thanks for your participation. Keep it up!

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## About KARO ECHO

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KARO ECHO is the name of the Kensington Amateur Radio Operators and the El Cerrito Ham Operators mutual benefit association, an all-volunteer non-profit group of amateur radio operators providing auxiliary communications for the cities of Kensington and El Cerrito in the event of a disaster. KARO ECHO works with CERT (Community Emergency Response Teams) in Kensington and El Cerrito, but is not an official part of the CERT program.

Monthly in-person meetings of KARO ECHO are on the 2nd Monday of each month at 7:00 pm, in-person at the Kensington Community Center (KCC) as well as online using Zoom (hybrid meetings).

The next meetings are:

- ♦ Mar. 14<sup>th</sup>, 2022
- ♦ Apr. 11<sup>th</sup>, 2022

Yearly membership dues are \$30/year for individuals, \$40/year for a family membership. Payments can be given to the Treasurer at monthly meetings or mailed to the address below. Participation is welcome independent of paid membership, but only licensed amateur radio operators who are dues paying KARO ECHO members will be allowed to vote on KARO ECHO business. Dues cover our 510c3 registration, post office box, web page, station operating manuals and more. Your input on useful expenditures to aid emergency communications is welcome.

Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651

Please see our website for more information: [www.karoecho.net](http://www.karoecho.net)

You can contact the KARO ECHO board by email: [info@karoecho.net](mailto:info@karoecho.net)

### KARO ECHO Facebook

The [KARO ECHO Group on Facebook](https://www.facebook.com/groups/1451216838315743/) has a lot of good information, more than is contained on our website. There is a whole wide world of emergency communications information at <https://www.facebook.com/groups/1451216838315743/> Check it out and be inspired of what we can do to help disaster victims in our community.

### Weekly Training Net

The Karo-Echo Weekly Training Net meets every Thursday evening immediately after the West Co Co County RACES/ACS Net; but not before 1900 on 146.415 MHz Simplex. Our secondary frequency is 146.475 MHz simplex. Details at <https://www.karoecho.net/events>

### Newsletter Content Wanted

Any input on content you'd like to propose for inclusion in the KARO ECHO newsletter can be sent to Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) We welcome all ideas for content including announcements, events, etc.

### KARO ECHO Field Day Video

Thanks to Frans KJ6IUV for taking video and editing a nice [movie of Field Day activities](#).



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## Outreach, Education and Licensing

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### Local and Online Ham License Classes and Exams

COVID restrictions have changed ham license classes and exams. Many are now offered in distanced/outdoor venues or entirely online. See a [list of opportunities on the KARO ECHO website](#)

### ARRL Learning Network Webinars

Visit the [ARRL Learning Network](#) (a members-only benefit) to register, check on upcoming webinars, and to view previously recorded sessions.

### Recruiting Additional Communications Coordinators

Read the [Neighborhood District Radio Communications Coordinator \(DRCC\) plan](#) written by Don NI6A.

### Training for Beginning Operators

Thanks to Jay KJ6WSS, Edward KM6UBY and Karen KK6ZPM for their May 23rd 2020 introductory radio class, with emphasis on the GMRS radio BTECH-V1. [A recording of the class and other resources are available here.](#)

### Net Control Operator Training

Diane KK6RED, David KJ6AAT and Howdy KE6BEE taught an Apr 4th 2020 net control class for C8 the county wide CERT organization. There was a great reception to this class across the county and we inspired many groups to expand the scope of their net trainings. [The class recording is available here.](#)

### EMCOMM related videos

See the CERT SET Youtube video link

<https://www.youtube.com/watch?v=66DdgGLIn4c&list=PLROOaUIKdrEgSID1bQJZojW3PzfURoEY-&index=144&t=0s>

Post Camp Fire GMRS organization

[https://www.youtube.com/watch?time\\_continue=220&v=aZiSC4sgKYw&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=220&v=aZiSC4sgKYw&feature=emb_logo)

### ELMERING

An online elmering forum can be accessed by emailing [elmer@karoecho.net](mailto:elmer@karoecho.net) or browsing the associated google group. More in-depth elmering/mentoring is available by request.

In the meanwhile, please check out the plethora of useful information at <https://www.karoecho.net> website.

### Encouragement to Monitor 146.415 and Explore Other Nets

During the current shelter in place, with time spent at home, it is a good opportunity to use your radio and monitor 146.415 (call out for others occasionally and make some casual contacts). There are a lot of other nets around the bay area that you can reach. Expand your radio horizons. See the [KARO ECHO Coordination page](#) for a listing of some other nets to explore. You can just listen at first, or program your radio (if a repeater is used) and try transmitting as a guest check-in to see if you can make contact.

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## KAROECHO.Net Website

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Especially, check out the EVENTS Page ( <https://www.karoecho.net/events> ) and the WORKSTREAMS drop-down menu which will lead one to an extensive training page that provides online learning at your own pace. Everything from the very beginning to advanced EmComm operations is detailed. The RESOURCE page has many excellent outside links.

- ♦ This [new heading on the Events page](#) will be updated with recent additions to the website.
- ♦ If you are on Facebook, contribute to the KARO ECHO Facebook Group Page at <https://www.facebook.com/groups/1451216838315743/>
- ♦ If you haven't already filled out the **JOIN** form please do. Find it as a drop down menu under "Get Involved" See <https://www.karoecho.net/join>
- ♦ A [follow-through novice primer](#) has been put on the website for new hams once they have bought their radio and want to learn more.
- ♦ A [dual-band antenna primer](#) for new hams who want to graduate from the rubber-duddy world
- ♦ Note that the Tram 1480 gain dual band antenna is currently still available for \$51 (no tax and free shipping) on ebay or from Home Depot. That and an inexpensive speaker tripod is a dynamite combination for portable operation. This antenna is equivalent to the Diamond X-200a antenna which sells at HRO for \$125.00 before taxes and shipping.
- ♦ For newbies, please visit <https://www.karoecho.net/workstreams/training> and read the study materials. It is all there except for hands-on experience. Ask questions!
- ♦ Following the Thursday evening net check-in, there is often a training session and/or discussion.
- ♦ All recent KARO ECHO [Minutes will be found at our Past Events page](#) We are now including past Executive Board Minutes as well. [Newsletters are on the Documents Page](#).

If you desire to be removed from this email list, please email [info@karoecho.net](mailto:info@karoecho.net)

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## Other Resources

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"ALERTWildfire" camera links in our area:

[William Rust Summit cam](#)

[Wildcat Canyon cam](#)

[Vollmer Peak cam](#)

[Nichol Knob cam](#)

[View real-time data from any weather station in the state.](#)

[Zonehaven evacuation zone here by on this interactive map](#)

[Albany Radio Groups.io forum](#)

[Eastbay Resilience Groups.io forum](#)

[Marina Bay Neighbors and 1st Wed West county GMRS net](#)

To make it easy for amateurs to evaluate RF exposure, ARRL provides an [RF exposure calculator](#) on its [RF Exposure page](#).



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## KARO ECHO Classifieds

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We are soliciting classified ads from KARO ECHO members, and friends, to facilitate gifting, swapping, selling radio gear and/or offering help/services such as loans of special equipment/tools, etc. Please send any content to the newsletter editor, Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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**Loaner radios/antennas/meters** available for trial/testing, including:

HTs, larger mobile radios, gear for digital modes and mesh nodes, SWR/power meter

Contact: Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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**Available for free:** B&K Precision 2120B oscilloscope - 20MHz bandwidth, dual trace, triggered sweep. Contact: Tom, KN6BUY, at [tfat@sbcglobal.net](mailto:tfat@sbcglobal.net)

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